CAD ITAG Endorsement Survey

1. Respondent Information

July 22, 2022

Please complete the survey online by Friday, August 12, 2022.

The purpose of this survey is to collect responses from Ohio public institutions of higher education regarding a proposed alignment and awarding of credit hours for the Industry Recognized Credential Transfer Assurance Guide (ITAG) for Computer Aided Drafting/Design (CAD). We are asking respondents to review the proposed ITAG template and evaluate the listed credentials' possible alignment to the learning outcomes for courses in this discipline taught at post-secondary institutions. The template lists in the left-hand column the learning outcomes from the Transfer Assurance Guide (TAG) and Career-Technical Assurance Guide (CTAG) CAD courses, which share a common set of learning outcomes. In the right-hand column are the competencies required to acquire the proposed credentials for ITAG credit:

- Autodesk Certified Associate in CAD for Mechanical Design
- Autodesk Certified Professional in Inventor for Mechanical Design
- Certified SOLIDWORKS Associate in Mechanical Design
- Certified SOLIDWORKS Professional in Mechanical Design

If approved, the proposed ITAG would allow a student who passes the certification exam for any one of the four credentials listed above to transfer 3 credit hours to an Ohio public institution of higher learning towards a course covering the content of an introductory CAD course, regardless of where and how the student obtained the education to obtain the certification.

We ask that **one representative** complete this survey on behalf of your institution as soon as possible, but **no later than Friday, August 12, 2022**. Please share this survey with the person most familiar with the content and subject matter. Following statewide endorsement, a formal announcement will be sent out.

Rob Speckert, Miami University, is the lead faculty expert on the ITAG panel. Specific questions relevant to the content components of the alignment can be addressed to him at speckere@MiamiOH.edu with a carbon copy to Nikki Wearly (nwearly@highered.ohio.gov).

Survey responses left in the form of comments will also be reviewed by the members of the ITAG panel.

We thank you in advance for your valuable input.

* 1. Demographic Information about the person completing this survey

Name	
Institution	
Department	
Title	
E-mail	
Phone	

* 2. Please indicate the type of institution that you represent

- [ ] University
- [ ] Regional Campus
- [ ] Community College

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2. CAD Curriculum

* 3. Does your institution offer one or more courses in Mechanical Engineering Technology and/or Manufacturing with a focus on Computer Aided Drafting/Design?

- ◯ Yes
- ◯ No

3. Alignment

Please read through the template below.

Computer Aided Drafting/Design ITAG: Documentation of Credential and Alignment

Credential Name:	Autodesk Certified Associate in CAD for Mechanical Design Autodesk Certified Professional in Inventor for Mechanical Design Certified SOLIDWORKS Associate in Mechanical Design Certified SOLIDWORKS Professional in Mechanical Design
Credential Type:	X Certification ☐ License
Issuer of Credential:	Autodesk; SOLIDWORKS
Frequency of Updates:	
Exam(s) Required:	Autodesk Certified Associate in CAD for Mechanical Design certification exam: https://www.autodesk.com/certification/all-certifications/cad-mechanical-design-associate Autodesk Certified Professional in Inventor for Mechanical Design certification exam: https://www.autodesk.com/certification/all-certifications/inventor-mechanical-design-professional Certified SOLIDWORKS Associate in Mechanical Design: https://www.solidworks.com/certifications/mechanical-design-cswa-mechanical-design Certified SOLIDWORKS Professional in Mechanical Design: https://www.solidworks.com/certifications/mechanical-design-cswp-mechanical-design
Additional Requirements:	N/A
Current CTAG/TAG: (if applicable)	CTAG (CTMET005): https://www.ohiohighered.org/sites/default/files/uploads/transfer/CT2/Mechanical%20Engineering%20Technology%20CTAG.pdf TAG (OET012): https://www.ohiohighered.org/sites/ohiohighered.org/files/uploads/transfer/documents/TAG/FINAL%20Learning%20Outcomes%20for%20CAD%20TAG%20Course%209-30-16.pdf

Description of content to be evaluated and aligned:	
How long after attainment can credit be awarded?	3 Years
How can receiving institutions verify credential attainment?	Student must provide proof of certification.

Course Name: Computer Aided Drafting/Design
Credit Hours: 3
Course Description: This course introduces the student to the fundamental concepts used in creating computer-generated drawings using a commercial CAD software. Topics include coordinate systems, construction, text insertion, editing techniques, views, projections, display control inquiry techniques, dimensioning and use of part libraries in the creating of drawings and assemblies. Bill of materials will be generated from multi-sheet assemblies. Students will develop 3D objects using primitive solids and Boolean operations. Learning outcomes are achieved through various in class and laboratory experiences.

Postsecondary Learning Outcomes	Credential Content: Autodesk Certified Associate in CAD for Mechanical Drawing; Autodesk Inventor Certified Professional in Inventor for Mechanical Design	Credential Content: Certified SolidWorks Associate; Certified SolidWorks Professional
1. Demonstrate proficiency of a commercial CAD system based on ASME (ANSI) Y14.5M or equivalent ISO standards.*	Draw and organize objects. Project setup Drawing and Modeling	Sketching and Basic Features

2. Create working drawings using orthographic projections, section views, and auxiliary views.*	Technical detailed drawing creation 3D component modeling 3D assembly modeling and management	Drawings, assemblies, mates
3. Create detail drawings that include dimensions and tolerances.*	Draw and organize objects. Project setup	Drawings, assemblies, mates, reference geometry
4. Create assembly drawings including bill of materials.*	3D assembly modeling and management Assembly modeling	Drawings, assemblies, mates, reference geometry
5. Demonstrate a basic knowledge of 3D modeling.*	3D component modeling 3D assembly modeling and management Advanced part modeling	Sketches, drawings, features, assemblies, and mates

* 4. Do you agree that the content of the Autodesk Certified Associate in CAD for Mechanical Drawing and the Autodesk Inventor Certified Professional in Inventor for Mechanical Design (listed in the middle column in the template) aligns with the learning outcomes listed in the left-hand column that were taken from the CTAG and TAG course, Computer Aided Drafting/Design?

- ◯ Yes
- ◯ No

If you feel there was a major omission in the content to support a learning outcome, please indicate.

* 5. Do you support the awarding of 3 semester credit hours toward the CAD course for students who provide proof of holding the Autodesk Certified Associate in CAD for Mechanical Drawing credential, regardless of where the student learned the content to pass the credentialing exam?

- ◯ Yes
- ◯ No

If no, please explain.

* 6. Do you support the awarding of 3 semester credit hours toward the CAD course for students who provide proof of holding the Autodesk Certified Professional in Inventor for Mechanical Design credential, regardless of where the student learned the content to pass the credentialing exam?

- ◯ Yes
- ◯ No

If no, please explain.

* 7. Do you agree that the content of the Certified SOLIDWORKS Associate in Mechanical Design and the Certified SOLIDWORKS Professional in Mechanical Design (listed in the right-hand column in the template) aligns with the learning outcomes listed in the left-hand column that were taken from the CTAG and TAG course, Computer Aided Drafting/Design?

- ◯ Yes
- ◯ No

If you feel there was a major omission in the content to support a learning outcome, please indicate.

* 8. Do you support the awarding of 3 semester credit hours toward the CAD course for students who provide proof of holding the Certified SOLIDWORKS Associate in Mechanical Design credential, regardless of where the student learned the content to pass the credentialing exam?

- ◯ Yes
- ◯ No

If no, please explain.

* 9. Do you support the awarding of 3 semester credit hours toward the CAD course for students who provide proof of holding the Certified SOLIDWORKS Professional in Mechanical Design credential, regardless of where the student learned the content to pass the credentialing exam?

- ◯ Yes
- ◯ No

If no, please explain.

* 10. Do you support the creation of an ITAG for the proposed four credentials (also listed below) based upon the Computer Aided Drafting/Design CTAG and TAG course?

- Autodesk Certified Associate in CAD for Mechanical Design
- Autodesk Certified Professional in Inventor for Mechanical Design
- Certified SOLIDWORKS Associate in Mechanical Design
- Certified SOLIDWORKS Professional in Mechanical Design

- ◯ Yes
- ◯ No

If no, please explain.

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4. CAD Course

* 11. Does your institution offer a course that aligns to the approved learning outcomes for the CAD CTAG and TAG course, as listed in the left-hand column of the alignment template on the previous page?

- ◯ Yes
- ◯ No

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5. CAD Course

* 12. What is the course name and number of your CAD course?

* 13. How many credit hours are awarded for this course?

* 14. For which of the following credentials does your institution award credit for the course listed above to students who hold them? Please mark all that apply.

- [ ] Autodesk Certified Associate in CAD for Mechanical Design
- [ ] Autodesk Certified Professional in Inventor for Mechanical Design
- [ ] Certified SOLIDWORKS Associate in Mechanical Design
- [ ] Certified SOLIDWORKS Professional in Mechanical Design
- [ ] None of the above

If your institution awards credit for any of these credentials, please describe the Prior Learning Assessment (PLA) process at your school for applying the credential to meet the credit hours for your CAD course.

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6. Additional Comments

15. Are there additional comments that you would like to make about the proposed ITAG for CAD?

7. Thank You!

Thank you for completing this survey.

If you have any questions regarding this survey, please contact Nikki Wearly at nwearly@highered.ohio.gov.